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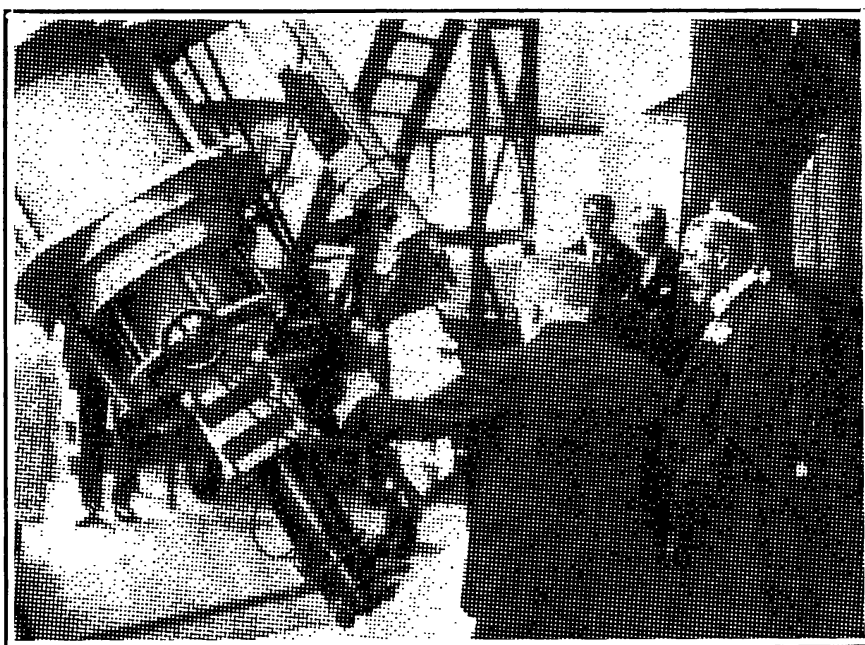
THE TWO HUNDRED AND FIFTIETH ANNIVERSARY AT GREENWICH

By S. A. MITCHELL

How fortunate it was that the Royal Observatory was started in 1675 so that the 250th anniversary of its foundation should occur in 1925, the year of the meeting of the International Astronomical Union in Cambridge. We astronomers from overseas had been greatly thrilled by our nine days of meetings in this old university town, the place of all places in the world for a scientific congress. The quiet dignity of the old colleges, the thrill of being in an atmosphere hallowed by the presence of Isaac Newton, John Couch Adams, Clerk Maxwell and William Wordsworth and the care with which the committee under the guidance of Professor Newall looked after our comfort made the Cambridge meeting one never to be forgotten.

The celebration at Greenwich followed immediately after the meetings at Cambridge which lasted from July 14 to July 22. The chief functions were three: an inspection by King George and Queen Mary of the Royal Observatory on the afternoon of Thursday, July 23, a conversazione by the Royal Society at their rooms in Burlington House the same evening and a luncheon at the Savoy Hotel presided over by the First Lord of the Admiralty on the following day.

On the occasion of the visit to Greenwich, the main avenue in the park through which their Majesties' motor car passed was lined



IN THE OBSERVATORY

His Majesty listening to an explanation of the working of the great equatorial telescope at Greenwich

with boys from the Royal Hospital School, under the command of Captain Oliphant, R.N. The First Lord of the Admiralty, Mr. Bridgeman, shared with the Astronomer-Royal and Lady Dyson and the Mayor of Greenwich the honour of receiving the King and Queen and conducting them over the building. As the grounds of the observatory are rather restricted, the list of those honoured by invitations to the celebration has to be limited and consisted of the delegates to the International Astronomical Union with their wives, certain members of the Admiralty and some of the distinguished men of science in Britain like Sir Joseph Thomson, the Master of Trinity. Though the crowd inside was small the crowd outside was very large; in fact, on our way to the Observatory we witnessed the crowds quietly gathering on the streets ready to give a cheer as their Majesties passed.

The hour for their arrival at Greenwich was set for 3.30 p.m. A few minutes before this time we could hear the cheer passed along the street and gradually becoming louder as the ever-popular sovereigns drew nearer.

On passing inside the Observatory gates the King and Queen were conducted to the famous Octagon Room with its wide view over London and the Thames. This room of great historical interest had been made still more beautiful with flowers. Here Sir Charles Sherrington, the President of the Royal Society presented to their Majesties the following members of the Board of Visitors of the Observatory: Dr. J. H. Jeans, Sir William Bragg, Professor A. Fowler, Sir Joseph Larmor, Sir Arthur Schuster, Sir Napier Shaw, Dr. J. W. L. Glaisher, Mr. E. B. Knobel, Sir Gerald Lenox-Conyngham, Professor H. F. Newall, Mr. J. H. Reynolds, Colonel F. J. M. Stratton, Professor H. H. Turner, Professor A. S. Eddington, Captain H. P. Douglas and Mr. W. E. Llewellyn.

The Astronomer-Royal then presented the president and vice-presidents of the International Astronomical Union as follows: M. Baillaud (director of the Paris Observatory), W. W. Campbell (Lick Observatory and president of the University of California), de Sitter (Holland), Deslandres (France) and Cerulli (Italy). Four British astronomers were also presented: Professor R. A. Sampson (Astronomer-Royal for Scotland), Dr. H. Spencer Jones (H. M. Astronomer at the Cape of Good Hope), Dr. J. S. Plaskett

(Dominion Astrophysical Observatory) and Dr. A. W. Roberts (South Africa and member of the South African Senate).

From the Octagon Room the King and Queen went into the Clock Room, where are kept the standard clocks, and from there to the Transit Circle where with the 11-foot telescope they saw the Greenwich meridian, the imaginary line from which all of the longitudes of the world are measured. The telescopes were seen and their operations explained.

We ourselves had decided to stay near the gates of the Observatory to witness the arrival. Fortunately for us, Mr. Davidson thought we would have a much better view if we went into the newer part of the Observatory where we could witness the approach through the double line of naval Cadets. On coming into this building Mr. Newton was good enough to suggest to us that after their Majesties' arrival we might care to go into his own office. It was not expected that the King and Queen would visit this room, but from the windows we could get a splendid view of them as they approached the building. All turned out as Mr. Newton expected except in one particular. Their Majesties passed through the hall of this building and up into the dome where they inspected the photographic equatorial. We had a very excellent glimpse of the party as they ascended. On coming down they hesitated at the door of the room where a few of us were gathered, and the Astronomer-Royal explained to her Majesty that solar photographs and records were kept there. Queen Mary said she would like to see them—and her wish was law. The King took a very great interest in all that he saw, and he so surprised and thrilled one of the lady members of the staff by asking her some questions that it was some little time after the departure of the royal party that she came back to earth and gained composure. While in the room with us (about ten minutes) the King was very affable, and on leaving the room I heard him tell Mr. Bridgeman that as First Lord of the Admiralty he really ought to know a little astronomy.

The Royal Observatory has not been visited before by royalty since the reign of George III.

Among the interesting astronomical exhibits which we saw in the rooms of the Royal Society were: an Egyptian waterclock from Karnak (about 1400 B.C.); an Egyptian shadow clock, such

as was in use from very early times for indicating the passage of the hours from sunrise to noon, and then by reversing its position, from noon to sunset (about 800 B.C.); a replica of the early Egyptian measuring instrument, the "Merket" (about 700 B.C.); the original reflecting telescope of Sir Isaac Newton, made with his own hands in 1671; four object glasses of Huyghens, one with a focal length of 210 feet; and also instruments and apparatus by Sir William Herschel and Sir John Herschel.

The account of the luncheon given by the government to celebrate the 250th anniversary is taken from *The Times*. The luncheon at the Savoy Hotel was presided over by Mr. Bridgeman, First Lord of the Admiralty.

THE ADVANCE OF ASTRONOMY

Royal Observatory Anniversary

RECORD OF 250 YEARS

To celebrate the 250th anniversary of the foundation of the Royal Observatory at Greenwich a luncheon was given by the Government at the Savoy Hotel yesterday. Mr. Bridgeman, First Lord of the Admiralty, presided.

In giving the toast of the Royal Observatory, the Chairman said that in 1886 two young and innocent men appeared before the examiners of Trinity College, Cambridge, in competition for scholarships at that college. One was a modern-sider and the other a classical-sider. The present Astronomer-Royal was one of the modern scientific competitors, and was, of course, successful, while he (Mr. Bridgeman) was one of the classical competitors, and was successful too. (Cheers.) He had only to draw a parallel between their careers. From that moment the Astronomer-Royal began to mount *sic itur ad astra*, and he (the speaker) began to descend. (Laughter.) He descended until that morning, which he had spent in investigating the bowels of the earth in company with the mineowners and miners, who, as might possibly be known, were not quite agreed on matters at the moment. (Laughter.) He could only hope it would not put off other classical aspirants from trying again to get honours in classics, because of a feeling that all the jam went to the scientific side. (Laughter.) He ought to congratulate the Astronomer-Royal on some of his latest triumphs, in particular in securing the gold medal of the Royal Astronomical Society. For his own part he might get a chunk of coal at his

head. (Laughter.) Continuing, Mr. Bridgeman said that he was not sure that the toast ought not to be to the pious memory of Charles II., who never got the credit which was his due. It was entirely owing to his intelligence and energy that the Greenwich Observatory was founded. The Navy owed him a great deal. He was an admirer of the Navy (although in his reign we were not so successful as we were now), and asked for money for cruisers and other up-to-date vessels of the time. (Laughter.) But in those days the people were not quite sure that the money, if provided, would be spent altogether in the way they desired. (Laughter.) Charles II. was the great benefactor who started that institution. People should put it to his credit and stand up for him against some of those who were inclined to condemn him for other characteristics he possessed. (Laughter.)

The work of the Observatory was to keep time in its proper place. The ordinary individual citizen was apt to say with Shakespeare that "times are out of joint, oh! cursed spite, that ever I was born to set it right." The Astronomer-Royal said "times are out of joint, are they? I will put it right in a minute" (laughter)—and he did. They in the Navy were very grateful to him for keeping their chronometers correct and enabling them to be as punctual as any other Service of his Majesty. The odd thing was that Father Time did not seem to mind being ordered about by Greenwich Observatory. He was told that in 250 years there had only been nine Astronomers-Royal. Compare that with the Admiralty, and it would be found that there had been 14 First Lords in the last 15 or 20 years. From that he deduced that time liked being kept in its place, and the reason was that Greenwich Observatory was managed by such admirable men as his friend the Astronomer-Royal. (Cheers.) He coupled with the toast the name of Sir Charles Sherrington, President of the Royal Society, which was also founded by Charles II.

Sir Charles Sherrington said that the anniversary was of interest not only to the Observatory, but to science generally. Owing to its conspicuous achievements and its splendid record of service to science, the Royal Observatory was a source of inspiration for the present and the future. The Royal Society cherished no connexion more than its tie with the Observatory. Referring to the association of the Observatory with the Navy, Sir Charles Sherrington said that Pepys, the Secretary of the Admiralty, was

President of the Royal Society. It was a pity that the Diary concluded just before the Observatory was founded, owing to Pepys's failing sight. Had he gone on what a revealing document would have been left for posterity! The science which was the basis of the art of navigation would remain one of the chief duties of Greenwich. We were a maritime nation, and therefore the work at the Observatory was of the deepest interest to us. He felt sure it would continue to take its share in bringing to the utmost perfection that national art.

Sir Frank Dyson, the Astronomer-Royal, in proposing "Our Guests," said that the oldest existing observatory in Europe was at the Vatican. It was founded by Pope Gregory XIII., who instituted the Gregorian calendar. After that came Leyden in 1632, Copenhagen in 1637, Paris in 1667, and Greenwich in 1675. There was then a gap. In the latter half of the 18th century came Prague, Geneva, Milan, Oxford, Rome, San Fernando, Madrid, and Coimbra. In 1820 two observatories in which England had particular interest were brought into being—Cambridge and the Cape of Good Hope. They were the only observatories which had passed their century. Later came the American observatories, which sprang up with surprising rapidity, and commenced in 1840 with Harvard and Philadelphia, followed by many others, which had contributed so largely to the progress of astronomy. Victoria, in Canada, was opened in 1917. The last observatory of all, due to the enthusiasm of Professor Schlesinger, and the public spirit of Yale University, was started only this year at Johannesburg, and was opened by the Prince of Wales hardly six weeks ago. All rejoiced at their success. Fortunately, astronomy was a subject in which no material interests were involved, and so their competition with one another was entirely of a friendly character. All liked to do things before the other, but each rejoiced at the other's success. (Cheers.)

Professor B. Baillaud, who replied, referred to the wonderful position occupied by Greenwich from the standpoint of the whole world.

Professor W. W. Campbell (of Lick and California), who also responded, said that Greenwich had never been more active than in the present decade. It was thoroughly wide awake. Its influence in the world had never been greater.

Professor H. H. Turner also replied.